FISH SPECIES

IN THE

YUKON TERRITORY

Yukon Department of Environment
Fisheries Section

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INCONNU

Stenodus leucichthys (Guldenstadt). Its name in French means "the unknown fish". It is also called Coney or sheefish. Inconnu are light in exterior colouring with the dorsal fins dusky at the tip, the tail fin shading to dark at the edge. The lower jaw is longer than the upper and usually somewhat hooked. The flesh is white, but rather soft and oily. In the Yukon, inconnu are smaller than the 25-30 pound fish of the Mackenzie delta area. Although they will take the hook and are excellent fighting fish, most are caught by gillnets of domestic fishermen. They are late summer or fall spawners. Inconnu are fairly abundant in the Yukon, Pelly, Stewart and Porcupine River systems.

LAKE (HUMPBACK) WHITEFISH

Coregonus clupeaformis (Mitchill). This species is important commercially in the Yukon, where it is found in most of the lakes. In colouring the whitefish is olivaceous on the upper part of the body, with whitish sides and under portions. The tail fin is deeply forked. The lower fins may be dusky. The mouth is subterminal. Adults have a fleshy bump at the shoulders; hence their name. Mature fish average 18 inches in length and weigh about 2.5 pounds. They live on minute molluscs, crustaceans and other small aquatic creatures. Its summer habitat is in the deeper, colder parts of the lakes, from which it moves into more shallow water at spawning time - late October onward. Gillnetting is the chief method of catching them, although they have been known to strike angler lures in early spring.

BROAD WHITEFISH

Coregonus nasus (Pallas). Flattened sides and a compressed body have resulted in this whitefish species being given the name "broad whitefish". The head is short and the snout blunt. Adults have a large adipose fin and a deeply forked tail fin. During fall spawning, the large scales become covered with white conical tubercles, especially on the males. Adults have a brown or blackish coloured back and yellowish or silvery belly. Commercially caught broad whitefish are 3-5 pounds in weight although much heavier fish do exist. They are found mostly in rivers, but sometimes in lakes. As evidenced by their blunt snouts, broad whitefish are bottom feeders, feeding mainly on molluscs and aquatic insect larvae. In the Yukon, broad whitefish are more important for local consumption than for commercial purposes.

ROUND WHITEFISH

Prosopium cylindraceum (Pallas). As their Latin name implies, round whitefish are almost cylindrical in cross-section. They are cigar-shaped with a strongly forked tail, short head, small mouth devoid of teeth, and a laterally "pinched" snout which projects beyond the lower jaw. Large, easily loosened scales cover their dark brown olive-green above and silvery below bodies. They average less than 16.5 inches in length and 2 pounds in weight. They are widely distributed throughout the Yukon. Round whitefish are shallow water bottom feeders, feeding mainly on caddis fly larvae and pupae, snails, and fish eggs. Spawning occurs along lake and stream shorelines in autumn. "Rounds" are not important as a commercial species as they are seldom caught in 4" mesh gillnets, but are utilised by First Nations who fish for their own needs.

PYGMY WHITEFISH

Prosopium coulteri (Eigenmann & Eigenmann). Their range in the Yukon Territory is limited to the Alsek River system and the headquarters of the Yukon River. Squanga Lake, east of Whitehorse, has a sizeable population of pygmy whitefish. The pygmy whitefish has a cigar-shaped body, round in cross-section, short head, blunt snout and small mouth devoid of teeth. Adult fish are dark brown above, silvery below, and all fins are clear of any pigment. Little is known about their behaviour except that they are carnivorous, feeding on organisms such as aquatic insect larvae, crustaceans and small molluscs. Spawning occurs in autumn or early winter in lakes or streams with the eggs being scattered over gravel.

LEAST CISCO

Coregonus sardinella (Valenciennes). The least cisco has often been called "lake herring" because of resemblance to the salt water herring. A trout-like body, moderate-sized head, large eyes and scales, no teeth and a projecting lower jaw identify the species. Adults are grey to olive-green above and silvery below. The non-migratory form seldom exceeds 9 inches in length and has no spots on the fins or back. It occurs abundantly in almost all lakes and rivers of the upper Yukon system right up to the headwaters, including Lake Laberge, Atlin, Teslin, Tagish and Bennett Lakes. Least cisco are plankton feeders, but smaller insect larvae form a part of their summer diet. In turn, they are preyed upon by burbot, northern pike, inconnu and lake trout. Least cisco are autumn spawners.

ARCTIC CISCO

Coregonus autumnalis (Pallas). The Arctic cisco has a trout like body, moderate sized head and eyes, and large scales. When its mouth is closed, the upper and lower jaw tips are equal. Though they may attain a length of 25 inches and a weight of 5.5 pounds, the average is much smaller. Anadromous adults are brown to light green on their backs and bright silver below. Spawning males develop rows of flat tubercles on their sides. As their name implies, Arctic cisco are found along the Beaufort Sea coast. They are common in the lower reaches of the rivers and are particularly abundant in brackish water. They feed mainly on crustaceans and small fish. In spring they ascend rivers where they spawn in late summer, after which they migrate back to a marine environment.

ARCTIC GRAYLING

Thymallus arcticus (Pallas). Arctic grayling have a slender body, short head, unusually large eyes, small square shaped mouth, and a greatly enlarged dorsal fin. They may grow as large as 24 inches long and attain a weight of 5 pounds, but the average Yukon grayling would be less than 20 inches long with a weight under 2 pounds. They are vividly coloured fish, especially during the spawning period. The adult grayling have dark purplish blue back and purplish grey sides with scattered black spots. The large dorsal fin with its rows of orange or emerald green spots edged with orange give the Arctic grayling male iridescent peacock coloration. Terrestrial insects form the larger part of their diet, but they also feed on bottom nymphs, snails, small fish and eggs.

LAKE CHUB

Couesius plumbeus (Aggasiz). This Yukon species has a slender body, short flattish head, broad snout and no adipose fin. The mouth is oblique and of moderate size with the

upper jaw extending backward. There is a distinct barbel near the end of the upper jaw. Lake Chub are small fish, usually less than 4 inches in length. Adults are black, dark brown or green above, pale silvery below with an indistinct dark mid-lateral band. Lake Chub frequent lakes and streams (both clear and muddy waters) throughout the territory. They remain close to the bottom regardless of depth and may occur in large schools. Terrestrial and aquatic insects (both larval and adults forms), zooplankton, algae, freshwater shrimp and small fish are eaten by the lake chub. In turn they serve as part of the diet of larger fish.

BOREAL SMELT

Osmerus eperlanus (Linnaeus). The smelt family is comprised of small, slender silvery fish which tend to occur in schools. The head and eyes of the boreal smelt are of moderate size, but the mouth is large, extends well back and has well developed teeth in both jaws. They are generally less than 10 inches long though they may grow to 16 inches. Adult fish are light olive green on the back and iridescent silver below. Spawning males develop large tubercles on their scales as well as a slight lateral ridge. Boreal smelt are anadromous in the Yukon and have been taken from some of the Arctic coastal rivers as well as in the Beaufort Sea. Adult fish feed partially on crustaceans and on small fish, as suggested by their large canine teeth.

LAKE TROUT

Salvelinus namaycush (Walbaum). In exterior colouring, lake trout vary from almost black to greyish or very light green with light coloured, irregular shaped spots. Similarly, there are variations in the colour of the flesh - from deep red to pale ivory. These differences are probably determined in part by heredity and in part by environment. Their main food is fish although smaller aquatic organisms are also eaten. Spawning occurs in the fall. Lake trout are sport fish as well as important commercially. Growth is quite slow in most water bodies in the Yukon yet twenty to thirty pound fish are not uncommon. Those living in large lakes usually grow to a larger size than those in smaller bodies of water. They will take the hook in fly fishing, with artificial lures, as well as some baits.

DOLLY VARDEN

Salvelinus malma (Walbaum). A trout like body, slightly oblique mouth, forked tail fin and small scales typify the Dolly Varden. They are dark blue to olive-green on the back and sides covered with light coloured yellow spots on the dorsal surface and orange and pink spots on the sides fading to white or dusky under parts. The spots are usually smaller in diameter that the pupil of the eye. The non-migratory fish found in the Yukon Territory average 4 to 6 pounds and are smaller than the sea-run form. Adult fish are carnivorous, feeding mainly on other fish, aquatic insect larvae and gastropods. They are autumn spawners. Stella Lake (MP 108, Haines Road) contains landlocked dollies. They are also reported from the Blackstone River (MP 68, Dempster Hwy). These fish are easily confused with Bull trout which are now known to be a separate species.

BULL TROUT

Salvelinus confluentus (Suckley). Bull trout have long been confused with Dolly Varden, although we now know that they are a distinct species. They are very similar in appearance to the Dolly Varden and can only be distinguished by a few subtle differences.

The easiest to distinguish physical characteristics are that Bull trout have no black spots on the dorsal fin and the eye is closer to the top of the head than a Dolly Varden. They also occupy different geographic ranges. Fish fitting this description if found in the Liard drainage are likely Bull trout, while those found elsewhere in the Yukon are likely Dolly Varden. Beware of confusing these fish with Arctic char as well.

ARCTIC CHAR

Salvelinus alpinus (Linnaeus). The Arctic char occurs in two principal forms. One migrates into the sea in the summer to feed, but returns to fresh water to pass the winter. The non-anadromous form remains in fresh water throughout its entire life. The Arctic char has an elongate body and in the sea run form is silvery with a deep blue or greenish blue on the back and upper sides. The non-anadromous form varies from dark blue to olive green or brown. Both forms have violet-pink or red spots on the dorsal surface and the sides which are usually larger in diameter than the pupil of the eye. As char approach spawning condition in the autumn, body colours range from bright red to deep vermilion. Adults are sexually mature at 18 inches and fish of over 20 pounds have been caught in Canada. During the winter, char feed little or not at all, but use large fat reserves stored during the previous summer. Arctic char occur in the northern drainages of the Yukon naturally, but are also stocked by the Yukon government in some accessible pothole lakes.

RAINBOW TROUT/STEELHEAD

Oncorhynchus mykiss (Richardson). A typically trout like body, rounded snout, large mouth and black spots on the back, dorsal, adipose and tail fins identify the rainbow trout. The back is bluish green to brown with white or dusky sides and under parts. Usually a light pink to vivid red distinct lateral stripe is visible. In lake populations with good food sources (generally stocked lakes in the Yukon) rainbows can reach 15 pounds in weight, but native stream fish typically weigh less than 3 pounds. Adult trout feed mainly on crustaceans (freshwater shrimp), aquatic insect larvae (caddis and black fly), molluscs and the occasional small fish. Their flesh ranges from bright orange to pale pink and is very delicious.

The steelhead is a sea-going form of rainbow trout. When in the sea, the body is mainly silvery, with a blue back. At spawning time a band of red colour develops along each side of the body. After spawning, many adult steelhead go back to the sea and some, although usually not a high proportion, return to fresh water after recuperation to spawn a second time. Females survive more often than males. The young fish live for one or two full years in freshwater before travelling to the sea as smolts from 4-10" in length. This migration takes place in the spring. Steelheads have been reported from Alsek-Tatshenshini River system in the southwest corner of the territory. They are often confused with the native trout which also exist in this watershed. However, steelhead are much larger fish, averaging better than 5 pounds.

KOKANEE

Oncorhynchus nerka (Walbaum) Kokanee are landlocked sockeye salmon and are identical to the anadromous sockeye salmon except for their size. In Kathleen Lake they seldom exceed two pounds in weight or 20 inches in length. Kokanee are usually bright silver bluish colour and typically trout like in appearance. At spawning time, they take the

appearance and coloration of spawning anadromous sockeye. Males become bright red on the back and sides with dirty white under parts. Their head becomes green in colour with a dusky elongated snout, and a light hump forms behind the head. Spawning females are similarly coloured, but the red is much darker. During most of the year, kokanee are in deep water. In early June they are found in shallow water in Kathleen Lake and are eagerly sought after by anglers for their tasty flesh.

SOCKEYE SALMON

Oncorhynchus nerka (Walbaum). The body of the sockeye is slightly elongated, the head is conical and the teeth are small and weak. They are distinguished from the other salmon by the absence of black spots on the back and tail fins. They average about 2.5 feet in length and under 5 pounds in weight. When male sockeye reach the Alsek-Tatshenshini waters at spawning time, their bodies turn brilliant red with metallic green heads. The upper jaw develops its characteristic hook and a slight hump forms behind the head. The female fish are a dark red with green and yellow blotches. After they hatch, young fry spend two years in freshwater lakes before migrating to the ocean where they spend the next three years. Sockeye are the most highly prized salmon because of the rich red, firm flesh.

COHO SALMON

Oncorhynchus kisutch (Walbaum). Coho have the typical body shape and fins of all Pacific salmon. They are distinguished from the other salmon by the fine black spots on the back and upper lobe of the tail (above the lateral line), and no black pigment along the base of the teeth in the lower jaw. During spawning, the fish have dark backs and stomachs; with a red stripe on the sides (males are more brilliant). Young Coho salmon reach the ocean before the end of their first year and return to spawn after a further year and some months in the ocean. Coho salmon are found in the Alsek-Tatshenshini River system, e.g. Klukshu River where anglers eagerly seek them out in late September and early October. Coho's are also found in the Porcupine River system in the northern part of the territory.

CHINOOK SALMON

Oncorhynchus tshawytacha (Walbaum). Other names for this Pacific salmon include springs, kings, or tyee when they are more than 30 pounds. The top half of the back (including the dorsal fin and both lobes of the tail fin) is heavily marked with irregular black spots and gums in the lower jaw are black. At spawning time, their backs are dark, with the sides being pink to dark reddish in colour. The male snout is elongated and strongly hooked. The adult fish average 15-20 pounds, but fish of 65 pounds have been taken in the Yukon River or its tributaries. The young spend their first year in freshwater lakes or quiet backwaters of the mainstem Yukon before migrating downstream as smolts. They arrive back as 4-7 year old fish ready to spawn.

CHUM SALMON

Oncorhynchus keta (Walbaum). Chum salmon are often called dog salmon because of the sharp dog-like teeth of spawning males and because they are often used to feed sled dogs. They are distinguished by the lack of black spots on the back and fins. Spawning fish have a greenish colour with dusky red mottling or bars on their sides. The pelvic and anal fins are white-tipped. Adult fish average less than 5 pounds in weight. Chum salmon spawn

in the major tributaries of the Yukon River - the White, Stewart, Pelly and Teslin Rivers. The Porcupine River and its tributary the Fishing Branch River, also contain a sizeable spawning population. They first appear in Dawson about the middle of August and are still running after ice covers the river. The fry migrate immediately upon emerging from the gravel and return in their third or fourth year.

NORTHERN PIKE

Esox lucius (Linnaeus). Northern pike are soft-rayed fish with no adipose fin, and one dorsal fin which is positioned well towards the tail. They are quite long in proportion to depth and width, and have a flattened snout. Their mouths bristle with sharp, pointed teeth. They are a dark green colour across the back, mottled down the sides with lighter spots going into a whitish belly. Adult pike spawn in the spring in shallow, weedy, flooded areas of rivers, marshes and bays of large lakes. Pike are found throughout the year in shallow water due to their ability to tolerate higher water temperatures, lower concentrations of oxygen and higher concentrations of carbon dioxide than many species of freshwater fish. They generally lie motionless and well camouflaged among the shallow water vegetation, waiting to pounce on anything that swims too close. Although they primarily eat fish, they also take any other creatures which are small enough and within striking distance.

BURBOT

Lota lota (Linnaeus) An eel like, elongate body tapering to a posterior rounded tail, flattened short head, large mouth with a single barbel under the chin, and two spineless dorsal fins can only describe the burbot. Although the body feels slippery, there are small embedded scales covered with slime. Adults are olive-green to dark brown on their back and sides with irregular pale blotches. Burbot may reach 4 feet in length and a weight of 75 pounds, but the average Yukon fish is less than 10 pounds. They are often called lingcod, ling, Maria, or loche. They are voracious feeders, feeding mainly at night on fish, though aquatic insects, crustaceans, plankton and fish eggs can make up a part of their diet. They are easily caught on baited set lines, as they are bottom dwellers.

LONGNOSE SUCKER

Catastomus catostomus (Forster). Any sucker taken from the Yukon River system is probably of this species. Suckers are identified by their ventral mouth and large lips. The back and sides of adult fish are dark grey to black with white under parts. Adult longnose suckers can attain a length of 25 inches and 3.5 - 4.5 pounds is the average weight. Spawning occurs in spring soon after the ice goes out, at which time the males have dark bands along their backs and lateral lines which are separated by a wide, brilliant red stripe. They also have well-developed calcified tubercles on their heads, anal and caudal fins. Suckers live in nearly all types of water, but thrive in warm shallow turbid rivers and lakes. They feed upon bottom insects, shells and vegetation sucked up from shallow muddy places.

WHITE SUCKER

Catostomus commersonii (Lacepede). This sucker species is found in some of the southern Yukon streams that drain into the Mackenzie River. Adults are brassy brown to black on their backs and silvery white sides and under parts. There is a dark stripe just below the

lateral line, but no red stripe is visible in spawning males, as in the longnose sucker. They spawn in late spring or early summer.

SLIMY SCULPIN

Cottus cognatus (Richardson). Sculpin are grotesque looking, small, bottom dwelling fish with broad flat bony heads, and very large pectoral fins. There are two dorsal fins, the anterior fin is spiny and the posterior is soft. One to three spines are found on the preopercle. Sculpins spawn in spring with the egg masses becoming attached under stones and guarded by the males. Sculpins are principally bottom feeders with aquatic insects and their larvae, plankton, crustaceans, and small fish making up their diets. In turn they are often eaten by burbot or lake trout.

NINESPINE STICKLEBACK

Pungitius pungitius (Linnaeus) The ninespine stickleback is a small (3 inch) but aggressive fish that lacks scales, and instead has bony plates along its sides. Seven to 12 sharp spines are located ahead of the soft dorsal fin or the pelvic fins and the body tapers to a very narrow point just before the tail. Adults are olive green to light brown on the back (irregular mottling present) with yellowish white under parts. Breeding males become jet black under the chin and along the belly. The stickleback species is typically found in shallow bays of lakes, slow streams and tundra ponds. Large schools may be associated with heavy aquatic vegetation. They are carnivorous fish, feeding mainly on insect larvae, small crustaceans, molluscs which they pick up near the bottom. All sticklebacks are territorial fish with the male building a tunnel shaped vegetation nest into which the female is lured.

TROUT PERCH

Percopsis omisomaycus (Walbaum) These are small fish, usually less than 4 inches long, with large blunt heads, long snout and large scales. They have a small adipose fin and large pectoral fins that extend beyond the start of the pelvic fins. Their bodies are elongated, tapering posteriorly, and when alive, they are translucent. Two rows of almost ten small dark blotches are found along the top half of the back. They are found in the Porcupine River and some of its tributaries - the Crow, Bell and Eagle Rivers. They are found in quiet backwaters feeding mainly on aquatic insects, small crustaceans and molluscs. Very little is known about their spawning behaviour, except that it occurs mainly at night during spring or early summer.

ARCTIC LAMPREY

Lampetra japonica (Martens). The Arctic lamprey has an eel like body, short head and a mouth surrounded by a circular sucking disc. No paired fins are present; instead the two dorsal fin folds and one caudal fin fold are almost continuous in adults. Lampreys differ from bony fishes in that they do not have scales, bones, jaws, ribs, paired fins, or gas bladders. In the parasitic form, teeth are sharp and strongly developed, whereas in the non-parasitic form, teeth are blunt and weakly developed. Arctic lamprey may grow to 2 feet in length and reach 8 ounces in weight. A non-migratory, but parasitic lamprey population is reported to exist in Tatlmain Lake (drains into Pelly River) where it feeds on whitefish. Anadromous forms along the Arctic-Yukon coast have invaded some of the river systems. After spawning the adults die. The larval stage is called ammocoetes.